USGS science for a changing world

Earthquake Shaking **Green** Alert

GSN USAID FROM THE AMERICAN PEOPLE ANSS

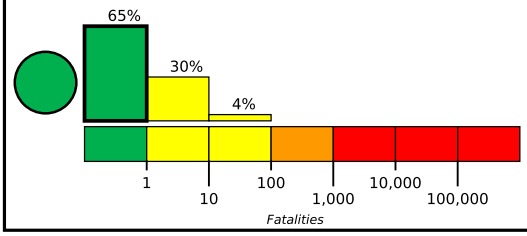
# M 6.0, 63 km E of Marihatag, Philippines

Origin Time: 2023-12-03 14:35:58 UTC (Sun 22:35:58 local)
Location: 8.7256° N 126.8701° E Depth: 26.5 km

**PAGER Version 4**

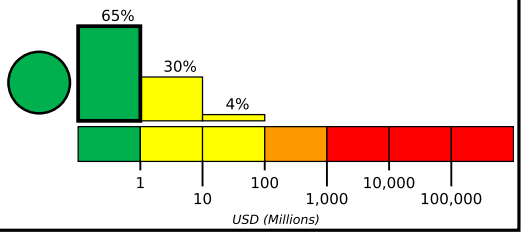
Created: 3 weeks, 4 days after earthquake

## Estimated Fatalities




Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

## Estimated Economic Losses

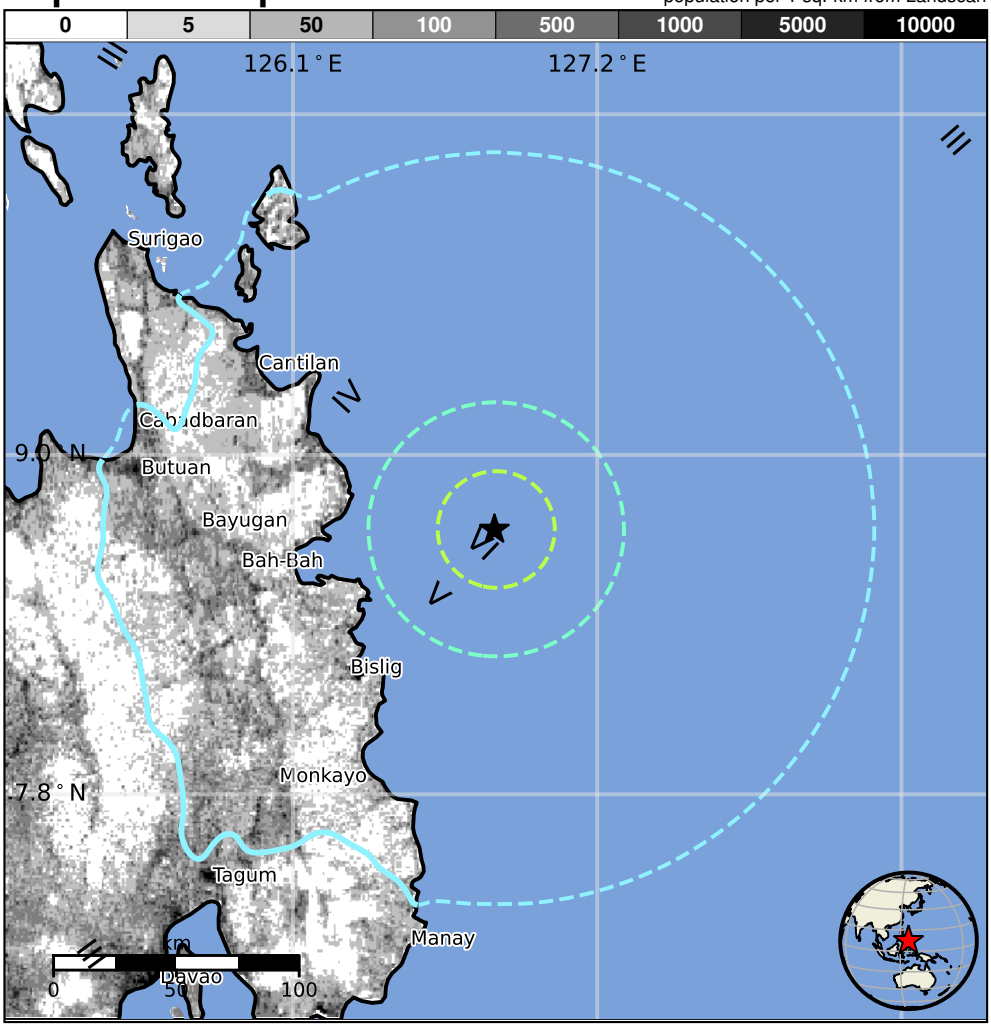



## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **ESTIMATED POPULATION EXPOSURE (k=x1000)** | | –* | 5,000k* | 3,508k | 0 | 0 | 0 | 0 | 0 | 0 |
| **ESTIMATED MODIFIED MERCALLI INTENSITY** | | **I** | **II-III** | **IV** | **V** | **VI** | **VII** | **VIII** | **IX** | **X+** |
| **PERCEIVED SHAKING** | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| **POTENTIAL DAMAGE** | **Resistant Structures** | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | **Vulnerable Structures** | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure




## Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are unknown/miscellaneous types and heavy wood frame construction.

## Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 1999-12-15 | 384 | 4.8 | VI(34k) | 1 |
| 1987-05-23 | 171 | 5.7 | VII(70k) | 1 |
| 1989-12-15 | 44 | 7.5 | VIII(1k) | 2 |

## Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| IV | Marihatag | 4k |
| IV | Cagwait | <1k |
| IV | Hinatuan | 10k |
| IV | Bayabas | <1k |
| IV | La Paz | 2k |
| IV | Salvacion | 2k |
| **IV** | **Butuan** | **310k** |
| IV | Libertad | 250k |
| IV | Magugpo | 233k |
| **III** | **Davao** | **1,213k** |
| III | Mati | 106k |

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

**https://earthquake.usgs.gov/earthquakes/eventpage/us7000lfwj#pager**

**Event ID: us7000lfwj**